

(ORIGINAL SERIAL STORY.)

THE WAYS OF THE WORLD.

BY JUNIUS HENRI BROWNE.

CHAPTER XI.

THE COVENANT OF FRIENDSHIP.

Dr. Archer found Christina Ulger still weak, and slightly troubled with nausea, the next afternoon, but, naturally, much better in mind and body than she had been the evening previous. She had slept, with few interruptions, for fifteen or sixteen hours, and had been vainly urged by Nora, who had placed herself at the side of the lounge on which she lay, to take some solid food. She was, as may be inferred, very glad to see him when he pronounced "the best man in the world."

To this the doctor replied, "You must not make me ridiculous, Christina, by your praise, because I happen not to be another Philip Royden."

She told him her whole story, from her earliest recollection, in so ingenious a manner that he was even more struck than he had been, the night before, with her goodness and her innocence. There was a charming simplicity about her which enabled him to see how she would viciously attract a man like Philip Royden, because he could so readily deceive her, after once gaining her confidence. She still believed that he had been very wicked, and that there could be nothing but misery in store for her, despite Archer's declaration to the contrary.

"I shall never be respected any more," she said; "I've been stained, and the stain can never be effaced. What man, or what woman, will look upon me now as they would have done, had I not sinned?"

"Many of the little world, the truly moral world," Charles Archer, for one, you may rest assured."

"Ah, doctor, most noble as you are, you would be more generous in theory than you could afford to be in fact. Even you would not, could not, treat me now as you might have done before—before—"

"Wouldn't I? Then I am a humbug and a poltroon. I despise a man who assumes that he won't live up to."

"Suppose, my good doctor, it is merely a supposition, you know—that you were in love with me, and wished to marry me. You would learn all at once what had happened. Can you believe you would marry me then?"

"You're putting the case strongly, Christina, and as it should be put, for a test of sincerity. Give me a few moments to reflect, that I may answer conscientiously. In less than a minute he added: "This is my answer, Christina Ulger: I am ready to take you as my wife before all the world, before both worlds, the big as well as the little one. Will you take me?"

"Great heavens, you are not in earnest! I must be dreaming again. O doctor, doctor, what are you, angel, man or devil?" She seized his hand and covered it with kisses and tears.

"I am in most earnest earnest, Christina. I am not aware that I have ever been quite so much in earnest as I am at this moment."

"And you do not love me either; you have not loved me twenty-four hours."

"No, Christina, I do not love you, as love is generally understood—at least not now. What I may do, it is impossible to tell. I have the deepest pity, the greatest sympathy for you. I wish to protect you, to keep you from harm, and the best as well as the safest way to do this is to take you as my wife. Will you accept me?"

She again clasped his hand, but uttered no word. Emotion rendered her speechless. She rolled from the lounge before he could prevent her, and sank on her knees at his feet. She made a low and touching picture, her deep blue eyes gazing up into his with an expression of worship through streaming tears. Her yellow hair—soft, shining, copious—unobscured by her sudden movement, had fallen over her graceful shoulders down to her waist. Her wrapper, though loosely cut, disclosed the curves of her fine figure; her innocent face was so eloquent, and her whole attitude so natural, yet so attractive, so perfectly pictorial indeed, that Archer, with whom love of beauty was intuitive, permitted her, so lost was he in admiration, to remain for nearly a minute at his feet. But, recovering from his ecstatic trance, he lifted the girl in his arms and placed her again on the lounge, saying: "You should not kneel to me, Christina. It seems like a sarcasm; it puts me to shame."

"It is natural for women to kneel where they worship. You are so good that you appear to me like a god."

"You do not know me, my dear child. The divine does not belong to me. I have never realized more thoroughly than now how very human I am."

"It is a divine humanity, then, doctor; for you have offered to marry me from mere pity, and such pity is more divine than human."

"I pity you, Christina, from my innocent soul; but I have not named pity as my motive for asking you to be my wife."

"You're too delicate for that. I'm a woman, and need not be told. Woman's instinct reveals to her more than words ever can."

"And then you won't have me, Christina?"

"I beg you, doctor, not ask me any more. I'm not very strong now, as you know. But, but—" and she paused before she continued. "No, no, a thousand times no! If I loved you with all the love of a world of women, I would not allow myself to become your wife. I would not take advantage of your generosity. If I were weak enough to yield, I should always bitterly regret my yielding."

"But, Christina—"

"Do not tempt me," she cried passionately. "You have proved your sincerity as I did not believe man could or would. I am so grateful to you, so very, very grateful, that I would give my life—but that would be little—to serve you. I cannot make you happy; but I would not make you wretched. I will try to think, as you are kind enough to say, that I am unfortunate, not really wicked."

"One thing you will permit me to be, Christina—your friend."

"I am afraid I am not strong enough to do without your friendship. You tell me that I must live, and to live now, as if you were not in the world, would doom me to constant wretchedness."

"Then the compact between us is that we are to be friends, and you will allow me to aid you until you can aid yourself."

"Would that be right?"

"Unquestionably, Christina. I must have this privilege. You will not refuse me. If you should, I should be very sorry I had ever seen you."

"And you are not sorry, doctor?"

"I am delighted, my dear girl. I think that I can be of some benefit to you. I've done so little good in this world that it comforts me to believe I can be of use to somebody."

"What have you not done for me, you noble man?"

"Let me see. Given you an emetic that made you very sick, and offered you a husband you would not have. Besides, I—"

She playfully put her hand over his mouth, and said, "Not another word, doctor. I will not allow you to misrepresent yourself."

"It is understood, then, Christina, that you will grant me the privilege of being your friend in all that friendship signifies. If you should, in your opinion, contract any debt of obligation which you afterward wish to discharge, you may pay it off. I'm really hard and selfish, as you will learn in due time. Don't concern yourself, my child, about getting into my debt. Be sure that I'll recover. I'm a terrible fellow to stand for my rights. Generosity forms no part of my composition."

"Now stop, stop," she said, again raising her hand spitefully; "I will not listen to any abuse of you, even from your own lips."

"But about our covenant of friendship, Christina?"

"Must I decide at once?" she asked after a little reflection. "I must? Then I will, though it is very difficult. I am only eighteen; I've never had a friend before, one like you at least, and maybe I don't know how to treat a friend. But I'll agree. I believe that you won't and can't do me any wrong. I'm your true friend now, doctor; you shall be mine, if you will; and I am more grateful to you than I can ever tell."

"Thank you, Christina, for accepting me."

"It is I, my good doctor, who have cause to be thankful, as you know, for such a disinterested, generous friend."

"We won't quarrel, my child (I'll call you a child, because I am ever so much older than you), about which of us should be the more thankful. It is enough that we are to be friends."

"You're not at all old, doctor; but I like to have you call me your child, it sounds very nice. You're as young as any manly man ought to be."

"Am I, indeed? I am only thirty-two by the record; but in feeling, perhaps in experience, I've lived a thousand years. I must leave you now, Christina. I can well do so, for you look far better and stronger than when I came."

"I am much stronger and better. Your kindness and sympathy are the best of medicines."

"Well, good-bye, Christina. I'll see you probably to-morrow. You know my address, where a line will reach me."

The girl gave him both her hands, and looked so yearningly into his eyes, and was so lovely withal, that it required an effort of will to overcome the temptation to clasp her in his arms. But he reasoned with himself that that would be rather demonstrative—this was the convenient word—within the limits of the character he had assumed. "A man," he added, "is not always a philosopher, even at the advanced age of thirty-two. I often imagine myself a veteran in emotion; and yet I discover every once in a while that I am very like a boy."

Archer shook her two hands, which though not very small, were soft and well-shaped, not knowing what else to do. He couldn't withdraw his gaze from her dark-blue eyes and her full, red lips, although he felt called upon to act the part of a grandfather, or father, at least, to the pretty girl, who sprung from grief to joy, from tragedy to comedy, with a suddenness and an ease that could have been only possible to an exuberant nature incapable of fully comprehending what moralists call sin.

Archer did not kiss her, but he went away.

CHAPTER XII.

COMMOATION AT THE RENSELAIER.

Archer felt more and more embittered toward Philip Royden, as he gained new glimpses of Christina's ingenuousness and innate purity. Intelligent and clever as she was, in certain directions, she had not sufficient knowledge of the world, or of her own disposition, to protect herself. A woman in feeling, she was a child in apprehension; and a thoroughly selfish fellow like Royden, who was ruled by his vanity, might have destroyed her morally, had not a better man drawn the sting from her transgression, and made her see humanity—at least a part of it—in a fairer light. He could understand but too well how dangerous such a girl as Christina might be to herself and to a man of the best intentions, though he could find no excuse nor palliation for the conduct of Royden, who, he believed, had deliberately planned her seduction, and had had the baseness to brag of it afterward at his club.

"Confound such a wretch," he mentally declared, "he ought to be killed for the public good!"

The evening of the day that Archer had formed his covenant of friendship with Christina, he went to the Renselaier for anything but an amiable mood. He could not banish Philip Royden from his mind, and several of his intimates noticed, as he walked up and down in the club-house, that he was out of sorts. They could not engage him in conversation; he answered questions monosyllabically, and was altogether unlike himself.

Beginning to be conscious that he would better seek solitude, he was on the point of going out for a long stroll. Just then Philip Royden entered with two or three of his light-headed, dissipated cronies, and greeted him flippantly, if not insolently, with, "How are you, Archer, old boy?"

Archer did not reply; he intended to cut him; but his intention seemed to have escaped notice. Changing his purpose, as abruptly as unaccountably, he decided to stay a little longer.

Stepping into the smoking-room, he sat down and lighted a cigar, and was pursuing the subject that engrossed him, when Philip Royden, Edward Wilkinson, Fredrick Comstock and two others sauntered in. While they were blowing smoke through their nostrils, they resumed, as it seemed, a previous conversation on eating. They were addicted to sensual topics, and their remarks showed their familiarity with it. They were debating about the best restaurants; they asserted that New York was the only city on this continent where one could always be sure of a decent dinner or breakfast; but that Delmonico's, the Brunswick or Pinard's couldn't be ranked with the Cafe Riche, the Maison Dorée or Vachette-Creban's, or many other restaurants of Paris. From this they proceeded to talk of table manners and of men of delicate palate, mentioning a number of their acquaintances as examples.

It was observable that they adjudged the grade of gentlemen to those who spent money freely, and who could determine at a glance a proper menu. A certain Martin Henderson was under discussion, when Royden said, "Henderson would be a gentleman if he didn't frequently drink Burgundy with fish."

"That's a fine point," laughed Wilkinson; "but it's well taken. I agree with you, Royden."

"Suppose he should drink sherry with fish," suggested Comstock; "would that lessen or increase his claim to being a gentleman?"

There was considerable pleasantry at this point among the circle, with a deal of stuff about the nature of gentlemen. This was very offensive to Archer, who had been obliged to exercise self-control not to denounce Royden for his flagrant snobbishness, for which he was notorious.

Having finished his cigar, he rose to go. The movement drew the attention of Royden. He evidently had noticed the cut of an hour before, and cried out, a sneer in his tone, "What do you think, doctor, of a man who takes Burgundy with fish? You assume to be wiser than most of us, and we should like your opinion. We shall give it due weight, remembering its source?"

Archer had, like most strong men, a high temper, which he generally commanded; but Royden's question and sneer, after his abominable treatment of Christina, were too much to endure.

"A man might drink Burgundy with fish," he said, with a favor of personality that could not be mistaken, "and be more of a gentleman than a man who would deliberately betray a poor, friendless girl, boast of his infamy in a public place, and then desert her with a brood of lies on his lips."

"Do you mean anything personal?" exclaimed Royden, reddening with wrath.

"If you don't know what I mean your companions do, for it was in this very room that you proved by your boast that no self-respecting man ought to associate with you."

Royden leaped to his feet, crying, "Take back your words, or I'll slap your face."

Archer looked at Royden with ineffable contempt, and said quietly, although his blazing eye contradicted his external calmness, "As you have shown yourself to be a liar and a scoundrel, it might be well for you to show that you are not also a coward."

Royden dashed toward Archer and struck at him with clenched fist. The doctor parried the blow, and as another was aimed at him, he warred that off likewise, and, white with wrath, rushing upon his antagonist, he seized him by the throat until his eyes protruded and he turned purple. He might have strangled Royden, had not several of his cronies and two or three other members of the club interposed, and begged him to release the badly worsted man.

"A man," he added, "is not always a philosopher, even at the advanced age of thirty-two. I often imagine myself a veteran in emotion; and yet I discover every once in a while that I am very like a boy."

The doctor was so furious that he cried, "Stand back, gentlemen! Don't interfere, at your peril, and he shook his adversary as a terrier would a rat. In a few moments he recovered himself in a degree; pushed his enemy from him, and Royden would have fallen to the floor, if Wilkinson and Comstock had not caught him.

Archer, turning to those about him, the extraordinary scene had caused a great commotion—remarked placidly, but with countenance still aflame: "I am very sorry this has happened; and it was forced upon me. It is impossible to endure everything."

The feeling of all who had seen any part of the painful encounter, Royden's families excepted, were with Archer, who was as much esteemed as his antagonist was disesteemed. Much surprise was expressed at the doctor's violent action; for he was regarded as very amiable, and was noted for his uniform courtesy; while Royden was often insulting and quarrelsome, and a bit of a bully.

The discomfited man, who had regained his breath and some of his insolence by this time, approached the doctor—albeit not too near for safety—and declared in a high voice, quivering with passion, "You shall pay for this outrage, Dr. Archer, and pay dearly. You shall give me satisfaction. We will see who is a coward."

"You are free, I suppose," replied Archer, "to take what course you choose. You seem, just at present, to need some sort of rehabilitation." He walked out of the room into the library, and meeting several of his acquaintances, talked on ordinary topics, but without eliciting much conversation.

The Renselaier was plainly moved. Groups of members were standing around, all discussing the row, many of them more interested in it than they would have been in another civil war. There were all sorts of opinions; but it was noticeable that the members generally were more concerned with the breach of the club's rules than with the moral depravity of Royden.

Archer sat down and wrote his resignation in order to save the Directory, or any committee, from the trouble of investigating or reporting on his share in the very unpleasant occurrence. Aside from this, he had grown tired of the Renselaier. He had long known what must be, to more or less extent, the constituent of social organizations; and but he had come to believe that the Renselaier contained more

than its proportion of educated blackguards and fashionably dressed rascals.

After having been one of the principals in the commotion of the evening, he did not care to retire too early, lest his retirement might be misunderstood, although he hated to be, as he was aware he must be, a general topic for discussion. Consequently he seated himself in a corner with the current number of the *Atlantic*, and tried to discourage invasion from gossips and newsmongers.

He was but measurably successful. Several of Royden's acquaintances came to talk to him of the unhappy affair, as they named it. They thought that he had been the aggressor, and that it would be desirable on all accounts to settle the matter peacefully. They intimated that he ought to make the first overtures, and that, if he would, the thing might be arranged without getting into the newspapers and creating a public scandal.

Archer, who felt that these persons were anxious to relieve Royden from what might be termed a very awkward predicament, told them that he had done nothing which he regretted, so far as his adversary was concerned. He should do the same thing again under the same circumstances, and he added that he was disinclined to pursue the subject. The would-be peace-makers withdrew, therefore, explaining that they had been influenced only by the best of motives.

When Archer left the club about 11 o'clock, he went in search of Goodwin, whom he had not seen for some days. He found him at his hotel reading a French novel for distraction, as Oscar said, and recalled all that had taken place since their last meeting as briefly as possible.

Goodwin was as indignant as his friend had been at Royden's licentiousness and treachery, and pronounced the doctor's proposal of marriage to Christina the quintessence of romantic chivalry, but some what supererogatory, perhaps.

"I'm aware," said Archer, "that ninety-nine men out of a hundred would consider it extreme folly. It was not, I know, the part of worldly wisdom; but, under those conditions, there was nothing else to do; and you, Oscar, situated as I was, would, I suspect, imitate my example."

"Would I? Well, it is pretty hard to tell what a man will or won't do when put to it. But what course do you intend to adopt in regard to the choking of Royden?"

"It is for him to act, not for me. I suppose that he has made up his mind to challenge me."

"But you won't fight him? You've always been opposed to dueling, and have always ridiculed it."

"So I have, Goodwin, and I'm wholly opposed to it now. Nevertheless, if he calls me out, I shall go. After what I have said to him, he might be justified in believing, if I should decline, that I had declined for some other reason than principle. He can't appreciate principle, and I haven't courage enough to allow such a shallow scoundrel as he to think I am a coward. I wouldn't rather not go out with him. I could easily refuse to employ the lingo of the code by declaring him a gentleman. He isn't, of course; but he is very much the kind of gentleman—Heaven save the mark!—that figures in the duello. He richly merits killing on general grounds, though I have no desire to be his executioner. He is Margaret Royden's brother by blood, by the accident of birth. That might entitle him to consideration, if he were not her antipodes. I sincerely believe that, if she could be deprived of the three members of her family, it would be a great gain to her."

"That seems a bad thing to say, Archer; but it would be harder to contradict it. How could such a girl and such a brother spring from the same stock? I am always, as you know, putting this question in one form or another; and the oftener I put it, the more difficult the answer is."

"The matter, I repeat, is not so strange, Oscar. You evidently have a theory about blood and inheritance; but facts, as you are aware, often play the devil with theories. We are continually hearing of black sheep in a flock; why shouldn't there be a particularly white ewe in a black flock?"

The Roydens, father, mother and son, are sufficiently dark in hue to make the daughter appear conspicuously white. The law of balance in men would require that she should be above the moral level, since they, as it seems to us, are far below it. Do you, by the way, make any progress in unraveling Barigues' antecedents?"

"I'm sorry to say I do not. I've been investigating the subject of the letters of introduction, which, it is currently reported, the Count brought here, and I'm forced to acknowledge, though I haven't seen them, that there is no rational doubt of the fact."

"That looks bad for our cause, Goodwin. It is not easy to go behind letters of introduction from prominent persons in Europe, where they are, you know, far more particular about such things than we are here."

"I'm painfully conscious of the truth of what you say, Archer. I'm distressed at my want of success. Instead of getting out of my labyrinth, I seem to get further and further in. What troubles me most is that I've probably inspired Margaret with some hope, through my expressed confidences. To drive her back to the outer darkness of despair, after leading her to a little light, would be supreme wretchedness both for her and myself. I've staked the happiness of two souls on my ability to expose Barigues. My happiness is of small consequence; her's is inestimable. I don't think I'm weak; but sometimes I seem overweighed with my assumed responsibility."

"Don't be despondent, Oscar," said Archer, putting his arm over his shoulder with a feminine tenderness. "There's a way out of everything; and the way is often disclosed when we seem to be shut in on every side."

"I'm not despondent, Archer, except at times. I still trust my instincts. I'm absolutely convinced by them that Barigues is an impostor, and if I live I'll be the means of unmasking him."

"That's the right spirit, my dear boy. The corner-stone of the Temple of Achievement is hopefulness. Confidence is partial execution."

"You're an odd fellow, Archer. You're usually hopeful for others, but almost never hopeful for yourself."

"That's because, knowing myself, I see that my confidence would be misplaced."

We trust our fellows on our ignorance of them."

"You always turn your virtues into satire, when anybody mentions them. But I'm very selfish to think of my own affairs when you're in danger. Pardon me, please. Can I be of any service?"

"None, my dear fellow. Under different circumstances, I might wish to engage you in a certain contingency. But when I'm involved with Margaret Royden's brother, I will not array you among his avowed enemies. You don't like him, I know; but one doesn't choose to be fighting with the kinsmen of one's lady-love, unless cast by an inflexible manager for the part of Romeo."

"Don't let my relation to Margaret stand in the way of my friendship for you. You wouldn't let any consideration hinder you from aiding me, and I hope that I am not so much less generous."

"You're too generous, Oscar; that's your fault. I not only won't have you act for me, if I require a friend, but I positively interdict your acting. But don't imagine you'll escape. If I should be called out, I shall have various commissions for you, and though of a peaceful and commercial kind, very important."

"It's altogether likely that you will be invited to fight. Philip Royden would enjoy what he would think the consequence of being a principal in a duel. The Renselaier, you told me, believes in dueling, and I believe, a good shot, too, and has won prizes as a member of the Newport Gun Club. Fortunately, you also are a clever marksman. I beg you to look out for yourself, Archer. Don't run any needless risk through some false notion of chivalry. Your life is valuable, as the life of any good, strong, intelligent man is; and Philip Royden's is not worth more than worthless. If one of you must be hurt, let it be him."

"Don't trouble yourself about me, Oscar. The gods take care of Cato."

"Your quotation is unfortunately apt. Cato would not take care of himself; he committed suicide, when he might have lived to advantage. I'm afraid of you. You're often wildly reckless; you seem sometimes as if you were trying to get rid of your life."

"Absurd! No New-Yorker need pretend he's tired of existence, when he can rid himself of it by merely walking down to any one of her hundreds of docks; fill his pockets with stones and jump off. It is very hard for an ordinary man to make his way here; but when he can't, he has the consolation of knowing that the city's surrounded by water."

"You know well enough, Archer, that many men who would like to die refrain from suicide."

"That's true enough, Goodwin; but you don't suppose that I'm one of them."

"No, I don't; though, as I've often told you, I can never get a key to your complex nature. I've seen you, when I have thought you courted death for no apparent reason whatever. I remember your desperate determination to relieve that Englishman on Mont Blanc, and your foolhardy enterprise in Calabria Citra."

"O those were merely larks, my dear boy."

"Very serious larks, Archer, and you escaped death by the luckiest chance."

"It's very pleasant, Oscar, to have you flatter me; but it's getting late. I'll report to you to-morrow, or to-day, rather. I'll retain the land in a fruitful condition. The lack of proper care in this respect is in some parts of the State becoming evident to an alarming extent. Many farmers have successfully cropped their land to the same product year after year, until, as a natural consequence, the soil has been exhausted of the properties needed for the nourishment of that particular product, and it fails to remunerate the farmer for his labor. As a general thing, says the land is 'worn out,' and, if possible, goes to work on a new piece of ground, leaving this to recover its productiveness by lying idle. Now if this farmer had known something of agricultural chemistry, or had had any knowledge of the principle of the rotation of crops, he need not have lost the use of his land. Plants, as well as animals, must be considered as individuals, for they have their own functional organs, and are, except in the case of parasites, independent of each other. Just as the animal needs a particular kind of food to sustain life, so the plant needs a particular soil. The farmer knows what character of soil is adapted to the different varieties of plants, as well as to know what particular plants are adapted to his wants. A farmer is dependent on plant life, but the reverse is not equally true. Animal life is sustained by the consumption of plants and their products; during this consumption carbonic acid and gaseous ammonia are given off. These both are essential to the life and growth of plants, but the natural production of these two gases other than by the respiration and excrements of animals is so great that it would be an extremely long time before the vegetable kingdom would suffer from the absence of animal life."

It is necessary, before going further, for us to understand the difference between natural and agricultural products. Natural products are the productions of nature, and are consumed by animals on the spot, or else mature, die and decay, and return to the soil from whence they came. In either case the fertility and quantity of the soil has not been impaired, but is constantly increased by that amount of matter assimilated from the atmosphere which is transferred to the soil in the ash. Agricultural products are those which are derived from the soil by the practice of agriculture, and are to a greater or less extent removed from the vicinity in which they were grown. The agriculturist supplements the efforts of nature by his knowledge, experience and labor, and is dependent on the products of the soil to furnish him with the necessities and luxuries of life. Soils under tillage are subject to a constant drain on their substance, and unless the farmer pays proper attention to the maintenance of the fertility of the soil it must sooner or later be exhausted. It is only comparatively recently that any attention has been paid to the use of fertilizers. In olden times the practices of the tillers of the soil in the valley of the Nile formed the example from which all other surrounding nations copied. The fertility of the Nile country is proverbial; for a period of three months—from August to November—it was overflowed by the Nile, and the waters on receding left a layer of sediment, surface washings from the interior of Africa, which was amply sufficient to maintain the strength of the soil. It is said that the substance of the Nile the farmers had "only to cast the seed, turn on a head of swine to tread it in, and await the harvest." In other countries where nature does not contribute so lavishly to the maintenance of the fertility of the soil, it re-

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The object of the agriculturist is to produce the plants and animals which are necessary to the existence of the human race. The first aim is the production of the varieties of plants suitable to the maintenance of animal life. The more advanced in civilization a nation is, the less crude do we find the tools and products of the agriculturists. In the tropics, owing to the great number of varieties of plants capable of sustaining life, and to the almost spontaneous growth of vegetation, the natives are under no difficulties in getting a sustenance, and here we find the least development of civilization. As we advance toward the temperate regions we find a more energetic class of people with a higher grade of civilization, which brings with it the use of more of the necessities of life, entailing upon the tillers of the soil a higher grade of cultivation and more systematic methods of husbandry; as a result, of which we have the art of agriculture as it is now practiced in all civilized countries. The art of agriculture has grown out of the observation and imitation of the best works of nature, and not a few practical results have been arrived at by chance. In the words of Prof. Johnson, of Yale College, "the science of agriculture is the rational theory, and the exposition of the successful art."

He says, "strictly considered, the art and science of agriculture are of equal age, and have grown together from the earliest times. Those who first cultivated the soil by digging, planting, manuring and irrigating, had the sufficient reason for every step. In all cases thought goes before work, and the intelligent workman has a theory on which his work was planned. Now we have a more advanced system of agriculture, and the science of agriculture is the rational theory, and the exposition of the successful art."

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